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| APPLICATION NO.  | FILING DATE                | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|------------------|----------------------------|----------------------|---------------------|------------------|
| 10/629,441       | 07/29/2003                 | Kenji Konno          | 15162/06060         | 5740             |
| 24367            | 7590 05/04/2005            |                      | EXAM                | INER             |
|                  | USTIN BROWN & W<br>HARWOOD | LESTER, E            | LESTER, EVELYN A    |                  |
| SUITE 3400       |                            |                      | ART UNIT            | PAPER NUMBER     |
| DALLAS, TX 75201 |                            |                      | 2873                |                  |

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | A  | 1 4 12 44 1  |                        |  |  |  |  |
|--|--|--|------------------------|--|--|--|--|
|  | Application No.  | Applicant(s)   |                        |  |  |  |  |
| Office Action Comments   | 10/629,441   | KONNO  | / (1W)                 |  |  |  |  |
| Office Action Summary  | Examiner   | Art Unit   |                        |  |  |  |  |
|  | Evelyn A. Lester   | 2873   |                        |  |  |  |  |
| The MAILING DATE of this communication appears on the cover sheet with the correspondence address<br>Period for Reply  |  |  |                        |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR RE THE MAILING DATE OF THIS COMMUNICATIO  - Extensions of time may be available under the provisions of 37 CFR after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a  - If NO period for reply is specified above, the maximum statutory per  - Failure to reply within the set or extended period for reply will, by sta Any reply received by the Office later than three months after the mi earned patent term adjustment. See 37 CFR 1.704(b). | N. 1.136(a). In no event, however, may a reply within the statutory minimum of thi iod will apply and will expire SIX (6) MOI alute, cause the application to become A | reply be timely filed  rty (30) days will be considered time  NTHS from the mailing date of this of  BANDONED (35 U.S.C. § 133). | ety.<br>communication. |  |  |  |  |
| Status   | •  |  |                        |  |  |  |  |
| 1) Responsive to communication(s) filed on _   |  |  |                        |  |  |  |  |
| <u> </u>   | ihis action is non-final.  |  |                        |  |  |  |  |
| 3) Since this application is in condition for allo   |  | ters, prosecution as to the  | e merits is            |  |  |  |  |
| closed in accordance with the practice unde  | · · · · · · · · · · · · · · · · · · ·  | •  |                        |  |  |  |  |
| Disposition of Claims  |  |  |                        |  |  |  |  |
| 4)⊠ Claim(s) <u>1-52</u> is/are pending in the applicati   | on.  |  |                        |  |  |  |  |
| 4a) Of the above claim(s) is/are withdrawn from consideration.   |  |  |                        |  |  |  |  |
| 5) Claim(s) is/are allowed.  | · · · <del></del>  |  |                        |  |  |  |  |
| 6) Claim(s) <u>1-5,7,9,10,12-18,20,25-31,33,35,3</u>   | 6) Claim(s) <u>1-5,7,9,10,12-18,20,25-31,33,35,36,38-44,46,51 and 52</u> is/are rejected.  |  |                        |  |  |  |  |
| 7) Claim(s) <u>6,8,11,19,21-24,32,34,37,45 and 4</u>   |  |  |                        |  |  |  |  |
| 8) Claim(s) are subject to restriction and   | d/or election requirement.   |  |                        |  |  |  |  |
| Application Papers   |  |  |                        |  |  |  |  |
| 9)⊠ The specification is objected to by the Exam   | iner.  |  |                        |  |  |  |  |
| 10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.   |  |  |                        |  |  |  |  |
| Applicant may not request that any objection to t  | •  | · ·  |                        |  |  |  |  |
| Replacement drawing sheet(s) including the corr  | •  | •  | ` '                    |  |  |  |  |
| 11)☐ The oath or declaration is objected to by the   | Examiner. Note the attache   | d Office Action or form P  | TO-152.                |  |  |  |  |
| Priority under 35 U.S.C. § 119   |  |  |                        |  |  |  |  |
| 12)⊠ Acknowledgment is made of a claim for fore a)⊠ All b)□ Some * c)□ None of:  | ign priority under 35 U.S.C.   | § 119(a)-(d) or (f).   |                        |  |  |  |  |
|  | 1.⊠ Certified copies of the priority documents have been received.   |  |                        |  |  |  |  |
| • • •  | 2. Certified copies of the priority documents have been received in Application No   |  |                        |  |  |  |  |
|  | 3. Copies of the certified copies of the priority documents have been received in this National Stage  |  |                        |  |  |  |  |
| application from the International Bur   |  |  | J                      |  |  |  |  |
| * See the attached detailed Office action for a l  | list of the certified copies not   | received.  |                        |  |  |  |  |
|  |  |  |                        |  |  |  |  |
| Attachment/e)  |  |  |                        |  |  |  |  |
| Attachment(s)    Outline of References Cited (PTO-892)    Outline of References Cited (PTO-892)    Outline of References Cited (PTO-892)   |  |  |                        |  |  |  |  |
| P) D Notice of Draftsperson's Patent Drawing Review (PTO-948)  | Paper No(  | s)/Mail Date   |                        |  |  |  |  |
| <ul> <li>Information Disclosure Statement(s) (PTO-1449 or PTO/SB/<br/>Paper No(s)/Mail Date 7-29-03.</li> </ul>  | 08) 5) Notice of t<br>6) Other:  | nformal Patent Application (PT   | O-152)                 |  |  |  |  |
| Detect and Trademada Office  |  | <u></u> '  |                        |  |  |  |  |

## **DETAILED ACTION**

#### **Priority**

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### Specification

2. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

#### Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 10, 13, 36 and 39 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 10, 13, 36 and 39 recite the limitation "the reflective member" in lines 7 and 2, respectively. There is insufficient antecedent basis for this limitation in the claim.

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# Claim Rejections - 35 USC § 102

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

- (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
- 4. Claims 1-5, 7, 9, 12, 27-31, 33, 35 and 38 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Ohno (U.S. Patent 6,040,949).

Ohno discloses the claimed invention, as noted in Figure 1 and their accompanying text, Table 1 and at column 3, lines 44-53, for example, having a zoom lens system having a plurality of lens units and an image sensor (3), including a first lens unit with negative refractive power and fixed during zooming (G1), a second lens unit with positive refractive power and moves toward the object side during zooming (G2) and a third lens unit with a positive refractive power and moves initially toward the image side during zooming and then moves toward the object side (G3).

5. Claims 1-5, 7, 12-18, 20, 25-31, 33, 38-44, 46, 51 and 51 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Nozawa et al (U.S. Patent 6,865,026 B2). Nozawa et al disclose the claimed invention, as noted in Figures 1a and 1b, and their accompanying text, as well as Example 1, for example, having a zoom lens system having a plurality of lens units and an image sensor (3), including a first lens unit with negative refractive power and fixed during zooming (G1), wherein the first lens unit also

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includes a reflective element (P), a second lens unit with positive refractive power and moves toward the object side during zooming (G2) and a third lens unit with a positive refractive power and moves initially toward the image side during zooming and then moves toward the object side (G3).

## Allowable Subject Matter

- 6. Claims 6, 8, 11, 19, 21-24, 32, 34, 37, 45 and 47-50 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
- 7. Claims 10 and 36 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2nd paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.
- 8. The following is a statement of reasons for the indication of allowable subject matter:

The prior art does not show or fairly suggest the claimed subject matter of a taking lens system and camera utilizing the taking lens system having the claimed structure and claimed limitations, wherein a rejection under 35 USC 102 or 103 would be improper. Please particularly note the combination of claimed elements and claimed limitations, including as recited in claims 6, 19, 32 and 45, wherein the aperture stop is specifically placed between the second and third lens units to ease the construction of the zoom lens system where the aperture remains stationary and the movements of the

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second and third lens units are in opposite directions of each other; as recited in claims 8, 21, 34 and 47, the aperture stop remains stationary relative to the image plane during zooming for the purpose of keeping the system thin thereby improving miniaturization of the camera; as recited in claims 10, 23, 36 and 49, the condition to be met also helps in maintaining a slim camera; as recited in claims 11, 24, 37 and 50, this claims conditional statement to be met provides an arrangement that provides a reduced zoom ratio thereby improving optical performance; and as recited in claims 22 and 48, the zoom lens system incorporates a reflective element and wherein the third lens unit is composed of a plurality of lens elements, which helps to improve the correction of variations in aberrations that accompany zooming. Therefore, the claimed subject matter is considered to be allowable, as being novel and nonobvious over the prior art.

#### Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

The following are all U.S. Patents or U.S. Patent Publications directed to various configurations for a three lens unit zoom lens system:

| Ohno           | U.S. Patent 6,362,924 B2         |
|----------------|----------------------------------|
| Yamamoto et al | U.S. Patent 6,721,106 B2         |
| Hagimori et al | U.S. Patent 6,728,482 B2         |
| Mihara         | U.S. Patent 6,771,432 B2         |
| Nanba          | U.S. Patent 6,813,091 B2         |
| Mihara et al   | U.S. Patent 6,850,373 B2         |
| Hagimori et al | U.S. Patent Pub. 2004/0012704 A1 |
| lwasawa        | U.S. Patent Pub. 2004/0105020 A1 |

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10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Evelyn A. Lester whose telephone number is (571) 272-2332. The examiner can normally be reached on M- F, from about 10 am to 7 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Primary Examiner
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